



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,044	07/24/2006	Toshimitsu Sato	1190-0631PUS1	9073
2292 7590 09/16/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
FEARER, MARK D				
ART UNIT		PAPER NUMBER		
2443				
NOTIFICATION DATE		DELIVERY MODE		
09/16/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/587,044

Applicant(s)

SATO ET AL.

Examiner

MARK D. FEARER

Art Unit

2443

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 24 July 2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-8, 10-11, 16, 18-19, 22, 24, 26-27, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakakita et al. (JP 02002159053 A).

Consider claim 1. Nakakita et al. discloses a network configuration management method for managing a network configuration in such a way that a participation terminal device can directly communicate with another participation terminal device, wherein a network includes a plurality of communication terminal devices each having a unique terminal identifier, one of the plurality of communication terminal devices is a management terminal device, and a communication terminal device which is permitted by the management terminal device to participate in the network is the participation terminal device; the network configuration management method comprising the steps of: sending from the management terminal device, participation terminal information stored in the management terminal device; receiving by the participation terminal device other than the management terminal device, the participation terminal information sent

from the management terminal device; judging by the participation terminal device other than the management terminal device, whether or not the participation terminal device can communicate with another participation terminal device that is participating in the network; sending a communication availability judgment result obtained by the step of judging, from the participation terminal device other than the management terminal device to the management terminal device; and determining by the management terminal device, a participation terminal device that should be excluded from the network in accordance with the communication availability judgment result, and deleting by the management terminal device, the participation terminal device that should be excluded from the network from the participation terminal information, thereby updating the participation terminal information stored in the management terminal device.

[Nakakita et al., paragraph 0015] In the example of drawing 1, the base transceiver station A is installed in A house, and the base transceiver station B is installed in B house, respectively. However, the cover area of the base stations A and B has a possibility of enough that each base station A and B was installed and of overflowing the houses A and B. For example, if it sees from the base station A of A house, not only the terminals 1 and 3 belonging to A house but the outdoor terminal 2 and the terminal 4 of B house have existed in the cover area of the base station A. However, since the outdoor terminal 2 and the terminal 4 of B house are not terminals belonging to A house, even if the base station A has registration and an authentication demand from the terminals 2 and 4, they do not need to give attestation to the terminals 2 and 4. That is, the terminals which the base station A should attest are only the terminals 1 and 3 which are terminals of A house. Therefore, it is made for the base station A to want to manage registration and attestation of a terminal so that attestation may not be given other than the terminal 1 of A house, and 3. The same thing can be said also in the base station B of B house.

[Nakakita et al., paragraph 0016] Even if it is between different manufacturing makers, the interconnectivity of apparatus is required of domestic apparatus. What is necessary is just to perform distribution of a secret key at Step S1001 of drawing 34 at wireless LAN like IEEE802.11 by which proprietary specification is permitted. For example, what is necessary is just to make a secret key to a base station or a terminal beforehand. However, in a domestic radio communications system, the mechanism in

which a secret key is exchangeable between the devices of a different maker is needed separately by the secure one and easy method by radio.

[Nakakita et al., paragraph 0049] In the 1st above-mentioned example, only one terminal can receive registration and attestation depending on one registration and an authentication sequence. Hereafter, this point is explained using drawing 15. In the example of drawing 15, since the direction of the terminal 2 pushed the registering button earlier than the terminal 1 (Step S102, step S102'), the application-for-registration information on the terminal 2 was received (Step S103, step S103'), and registration and attestation were able to be received as the result. The time of pushing a registering button, although one terminal 1 was register mode, the timer 1 passed the deadline at the time te, and it has returned from ts to the normal mode. Since it did not go into authentication mode, registration and the authentication failure of the terminal 1 can be judged to be the deadlines of this timer 1. Thus, when a base station makes application-for-registration information to receive during a register mode period and receive only the registration and the authentication demand from one terminal, it will be guaranteed that registration and attestation of a terminal are only one terminal simultaneously. Since registration and having attested can also presume the terminal of other houses or the exterior accidentally according to this, registration and attestation of a terminal can be redone. For example, suppose that the terminal 1 of drawing 15 is an internal terminal, and the terminal 2 is an external terminal. In this case, although the internal terminal 1 went wrong, since it is quite obvious that the base station is following the right sequence, it can be judged that registration and attestation of a certain terminal (here external terminal 2) may have been done accidentally. Thus, by the ability to judge, it is possible to redo registration and attestation of the internal terminal 1, or to correct the registration authentication table (refer to drawing 9) of a base station. The correction of the registration authentication table of a base station can perform deletion of only the latest information, deletion of all the information, etc.

Consider claim 2, as applied to claim 1. Nakakita et al. discloses a network configuration management method wherein, when there is a participation terminal device that should be excluded from the network, the step of updating the participation terminal information includes a process of sending a notice of exclusion for notifying that the participation terminal device that should be excluded is excluded from the network,

from the management terminal device to the participation terminal device that should be excluded.

[Nakakita et al., paragraph 0055] Since this 2nd example is clear in correlation with an authentication notification and the change rate to the authentication mode of a terminal compared with the 1st above-mentioned example, its point that the registration and attestation which the terminal which is not a request mistook can be prevented is advantageous. In the example of drawing 11 described in the 1st example, drawing 13, and drawing 14, it may be because it was attested [registration and] accidentally [terminal / with an another failure in registration and attestation of the terminal 1]. This is because the terminal 1 cannot grasp reply timing of the authentication notification from the base station A. On the other hand, after checking that the terminal 1 has become authentication mode in this 2nd example, in order that a user may operate the authentication button of the base station A, this reply timing is clear. Therefore, the base station A can prevent registration and the thing to attest accidentally [terminal / another].

Consider claim 4, as applied to claim 1. Nakakita et al. discloses a network configuration management method further comprising the step of performing an indication, by the participation terminal device that has been excluded from the network, for notifying a user of a fact that the participation terminal device has been excluded from the network. [Nakakita et al., paragraph 0055]

Consider claim 5, as applied to claim 1. The network configuration management method according to claim 1, further comprising the step of performing an indication, by the management terminal device, for notifying a user of a fact that the participation terminal device is excluded from the network. [Nakakita et al., paragraph 0055]

Consider claim 6. Nakakita et al. discloses a management communication terminal device for managing a network configuration in such a way that a participation terminal device can directly communicate with another participation terminal device, wherein a network includes a plurality of communication terminal devices each having a unique terminal identifier, one of the plurality of communication terminal devices is the management communication terminal device, and a communication terminal device which is permitted by the management communication terminal device to participate in the network is the participation terminal device; the management communication terminal device comprising: a communication section which performs communication; a storage section which stores participation terminal information regarding the participation terminal device which is permitted to participate in the network; and control section; wherein the control section controls so as to perform and repeat process of sending the participation terminal information stored in the storage section from the communication section; a process of receiving communication availability judgment result, after receiving the sent participation terminal information, from a participation terminal device which sends the communication availability judgment result indicating whether or not communication can be performed with another participation terminal device that is participating in the network, another participation terminal device being other than the management communication terminal device; and process of determining a participation terminal device that should be excluded from the network in accordance with the communication availability judgment result, and deleting the participation terminal device that should be excluded from the network from the participation terminal

information, thereby updating the participation terminal information. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 7, as applied to claim 6. The management communication terminal device according to claim 6, wherein, when the participation terminal information is updated, if there is a participation terminal device that should be excluded from the network, the management communication terminal device sends a notice of exclusion for notifying the participation terminal device that should be excluded from the network of a fact that the participation terminal device that should be excluded is excluded from the network. [Nakakita et al., paragraph 0055]

Consider claim 8. Nakakita et al. discloses a communication terminal device other than a management terminal device, wherein a network includes a plurality of communication terminal devices each having a unique terminal identifier, one of the plurality of communication terminal devices is the management terminal device, and a communication terminal device which is permitted by the management terminal device to participate in the network is the participation terminal device; the communication terminal device comprising: a communication section which performs communication; a storage section which stores the participation terminal information regarding the participation terminal device which is permitted to participate in the network and communication availability judgment result; and control section; wherein the control

section controls so as to perform and repeat process of judging whether communication with another participation terminal device that is participating in the network can be performed or not; and process of sending the communication availability judgment result obtained by the process of judging to the management terminal device. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 10, as applied to claim 8. The communication terminal device according to claim 8, wherein the participation terminal device excluded from the network comprises a display section, and the display section displays so as to notify a user that the own communication terminal device has been excluded from the network. [Nakakita et al., paragraph 0055]

Consider claim 11. Nakakita et al. discloses a network band management method used in a network that comprises a plurality of communication terminals including a single management terminal and a plurality of managed terminals, the plurality of the communication terminals in the network directly communicating with each other; the network band management method comprising the steps of: giving notice of sending information which contains information regarding band for data transmission being used by the plurality of managed communication terminals, from the plurality of the managed terminals to the management terminal; generating by the management terminal, band-in-use information regarding a band being used in the

network in accordance with the notified sending information; and giving notice of the generated band-in-use information from the management terminal to the plurality of the managed terminals. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 16. Nakakita et al. discloses a network participation method for participating in a network by a participation requesting terminal, wherein the network includes a plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is a management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the network participation method comprising the steps of: receiving participation terminal information of the communication terminal that is participating in the network, the participation terminal information being sent from the management terminal at regular intervals; judging communication availability judgment indicating whether communication with the communication terminals that are participating in the network can be performed and available transmission rates in accordance with the participation terminal information; sending a participation request which contains a result of the transmission rate judgment to the management terminal; receiving a participation permissibility judgment result indicating whether the participation requesting terminal can participate in the network or not, the participation permissibility judgment result being sent from the management terminal, as a result of the participation request sending; and determining

network participation permissibility in accordance with the received participation permissibility judgment result. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 17, as applied to claim 16. The network participation method according to claim 16, wherein the step of receiving the participation permissibility judgment result includes the step of notifying a user that the communication terminal has failed to participate in the network, when the participation requesting terminal receives a judgment result indicating not to be able to participate in the network. [Nakakita et al., paragraph 0055]

Consider claim 18. Nakakita et al. discloses a network configuration management method for managing a network configuration by a management terminal, wherein the network includes a plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the network configuration management method comprising the steps of: giving notice of participation terminal information of the communication terminal that is participating in the network, to the communication terminal in the network, by broadcasting at regular intervals; receiving a participation request being sent from a participation requesting terminal requesting to newly

participate in the network, the participation request which contains communication availability information indicating whether communication with the communication terminals that is participating in the network can be performed or not and a result of available transmission rate judgment; judging whether participation of the participation requesting terminal in the network can be permitted or not in accordance with the received participation request; sending a network participation permissibility judgment result regarding the participation of the participation requesting terminal to the participation requesting terminal; updating the participation terminal information in accordance with the participation permissibility judgment, if the participation requesting terminal can participate in the network; and ending the participation terminal information to the communication terminal that is participating in the network, if the participation terminal information is updated. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 19. Nakakita et al. discloses a network configuration management method for managing a network configuration, wherein the network includes a plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the network configuration management method comprising the steps of: receiving by a certain communication terminal, participation terminal information of the communication

terminal that is participating in the network, the participation terminal information being sent from the management terminal at regular intervals, the certain communication terminal being one of the plurality of communication terminals forming the network, the certain communication terminal being other than the management terminal; judging by the certain communication terminal other than the management terminal, communication availability indicating whether communication with the communication terminals that are participating in the network can be performed or not and available transmission rates in accordance with the participation terminal information; sending by the certain communication terminal other than the management terminal, a result of the transmission rate judgment to the management terminal as transmission rate judgment information; and excluding by the certain communication terminal other than the management terminal, the certain communication terminal from the network in accordance with a notice of exclusion being sent from the management terminal, if the certain communication terminal cannot communication with the other communication terminals that are participating in the network at a predetermined transmission rate or more, as a result of the transmission rate judgment. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 20, as applied to claim 19. A network configuration management method according to claim 19, wherein the step of excluding includes the steps of: confirming whether the received participation terminal information from the management terminal contains the terminal information, after the sending of the transmission rate

judgment information; adjudging that the certain communication terminal is participating in the network if the participation terminal information contains information of the certain communication terminal, and judging that the certain communication terminal has been excluded from the network if the participation terminal information does not contain the information of the certain communication terminal. [Nakakita et al., paragraph 0055]

Consider claim 21, as applied to claim 19. The network configuration management method according to claim 19, wherein the excluding step includes the step of notifying a user of the exclusion of the certain communication terminal from the network, when the certain communication terminal is judged that should be excluded from the network. [Nakakita et al., paragraph 0055]

Consider claim 22. Nakakita et al. discloses a network configuration management method for managing a network configuration by a management terminal, wherein the network includes a plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the network configuration management method comprising the steps of: giving notice of participation terminal information of the communication terminal that is participating in the network, to the communication

terminal in the network, by broadcasting at regular intervals; receiving a confirmation result of available transmission rates for communication with each of the communication terminals by the communication terminal that is participating in the network; and determining whether the communication terminal can participate in the network or not in accordance with the received transmission rate information, and deleting terminal information of a communication terminal being determined not to be able to participate in from the participation terminal information, thereby excluding the communication terminal from the network. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 23, as applied to claim 22. The network configuration management method according to claim 22, further comprising the step of notifying a user of the exclusion of the communication terminal from the network, when the communication terminal that is participating in the network was excluded. [Nakakita et al., paragraph 0055]

Consider claim 24. Nakakita et al. discloses a communication terminal device requesting to participate in a network, wherein the network includes a plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is a management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the communication terminal device

comprising: a participation terminal information receiving means for receiving participation terminal information of the communication terminals that are participating in the network, the participation terminal information being sent from the management terminal at regular intervals; a transmission rate judging means for judging communication availability indicating whether or not communication with the communication terminal that is participating in the network can be performed and available transmission rates in accordance with the participation terminal information; a participation request sending means for sending a participation request which contains a result of the transmission rate judgment to the management terminal; a participation judgment result receiving means for receiving a result of participation permissibility judgment indicating whether the participation requesting terminal can participate in the network or not, the participation permissibility judgment result being sent from the management terminal as a result of the participation request sending; and determining means for determining the network participation permissibility in accordance with the received participation judgment result. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 25, as applied to claim 24. The communication terminal device according to claim 24, further comprising a means for notifying a user that the communication terminal has failed to participate in the network, when the participation judgment result receiving means receives a judgment result indicating that the own

communication terminal cannot participate in the network. [Nakakita et al., paragraph 0055]

Consider claim 26. Nakakita et al. discloses a communication terminal device as a management terminal which is one of a plurality of communication terminals forming a network, wherein the network includes the plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the communication terminal device comprising: a participation terminal information notifying means for giving notice of participation terminal information of the communication terminal that is participating in the network to the communication terminals that are participating in the network by broadcasting at regular intervals; a participation request receiving means for receiving communication availability information indicating whether communication with the communication terminal that is participating in the network can be performed or not and a participation request which contains an available transmission rate judgment result, being sent from a participation requesting terminal which offers to newly participate in the network; a participation request judging means for judging the network participation permissibility of the participation requesting terminal in accordance with the received participation request; a participation request judgment result sending means for sending a participation permissibility judgment result whether the participation requesting terminal

can participate in the network or not, to the participation requesting terminal; a participation terminal information updating means for updating the participation terminal information, when the participation requesting terminal is judged to be able to participate in the network, in accordance with the participation permissibility judgment; and sending means for sending the participation terminal information to the communication terminal that is participating in the network, when the participation terminal information is updated. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 27. Nakakita et al. discloses a communication terminal device other than a management terminal, which is one of a plurality of communication terminals forming a network, wherein the network includes the plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the own communication terminal device comprising: a participation terminal information receiving means for receiving participation terminal information of a communication terminal that is participating in the network, the participation terminal information which is sent from the management terminal at regular intervals; a transmission rate judging means for judging communication availability judgment indicating whether communication with the communication terminals that are participating in the network can be performed or not and available transmission rates for communication, in accordance with the participation

terminal information; a transmission rate judgment information sending means for sending to the management terminal the transmission rate judgment result as transmission rate judgment information; and an excluding means for excluding the own communication terminal device from the network in accordance with a notice of exclusion which is sent from the management terminal, as a result of the transmission rate judgment, when the communication terminal device fails to communicate with the communication terminal that is participating in the network at a predetermined transmission rate or more. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 28, as applied to claim 27. The communication terminal device according to claim 27, wherein when the communication terminal device excludes the own communication terminal from the network, after sending the transmission rate judgment information, the communication terminal device confirms whether the participation terminal information which is received from the management terminal contains the own communication terminal information, judges that the own communication terminal is participating in the network if the participation terminal information contains the own communication terminal information, and judges that the own communication terminal is excluded from the network if the participation terminal information does not contain the own communication terminal information. [Nakakita et al., paragraph 0055]

Consider claim 29, as applied to claim 27. The communication terminal device according to claim 27, further comprising a means for notifying a user of the exclusion of the communication terminal from the network, when the own communication terminal is judged that should be excluded from the network by the network exclusion means.
[Nakakita et al., paragraph 0055]

Consider claim 30. Nakakita et al. discloses a communication terminal device as a management terminal which is one of a plurality of communication terminals forming a network, wherein the network includes the plurality of communication terminals each having a unique terminal identifier, one of the plurality of communication terminals is the management terminal, and the communication terminals that are participating in the network can directly communicate with each other and can acquire available transmission rates each other; the communication terminal device comprising: a participation terminal information notifying means for giving notice of participation terminal information of the communication terminal that is participating in the network, to the communication terminal that is participating in the network by broadcasting at regular intervals; a transmission rate judgment information receiving means for receiving a confirmation result of available transmission rates for communication between the communication terminal that is participating in the network and each of the communication terminals; and determining whether the communication terminal can participate in the network or not in accordance with the received transmission rate information in accordance with the transmission rate judgment information received at

the transmission rate judgment information receiving means, and deleting terminal information of a communication terminal being determined not to be able to participate in from the participation terminal information, thereby excluding the communication terminal from the network. [Nakakita et al., paragraphs 0015-0016, and 0049]

Consider claim 31, as applied to claim 30. The communication terminal device according to claim 30, further comprising a means for notifying a user that the communication terminal has been excluded from the network, when the communication terminal that is participating in the network was excluded from the network by the network exclusion means. [Nakakita et al., paragraph 0055]

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3, 9, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakakita et al. (JP 02002159053 A) in view of Takeuchi et al. (JP 02002111728 A).

Consider claim 3, as applied to claim 1. Nakakita et al. discloses a network configuration management method wherein the judging in the step of judging whether or not the participation terminal device can communicate with another participation terminal device, includes process of sending data for the communication availability judgment from the participation terminal device other than the management terminal device to another participation terminal device that is participating in the network, and process of judging whether or not the participation terminal device that has received the data for communication availability judgment can communicate in accordance with the received data for communication availability judgment.

However, Nakakita et al. does not explicitly disclose a system and method wherein communication between a terminal device and a management terminal device is performed at regular intervals.

Takeuchi et al. discloses a system and method of data transfer in radio networks wherein communication between a terminal device and a management terminal device is performed at regular intervals.

[Takeuchi et al., paragraph 0070] A transmitting control module (108) receives a band assignment result by the packet of the format shown in drawing 2. A transmitting control module searches whether the entry the zone classification field (205) of a receive packet and whose receiving node MAC Address (203) correspond exists. When it exists, the value of the bandwidth field (603) of the entry concerned and the bandwidth field (604) for resending is updated to the value stored in the field where the packet which received corresponds. It creates a new entry, in not existing. In this case, the value of the zone classification field (601), a receiving node MAC address field (602), the bandwidth field (603), and the bandwidth field (604) for resending is copied from the field where the packet which received corresponds. The transmitting number-of-bytes field (605) and the resending number-of-bytes field (606) are initialized to 0. The resending rate re-calculation counter field (607) is set as an initial value (time interval which re-calculates a resending rate).

Nakakita et al. discloses a prior art network configuration management method wherein the judging in the step of judging whether or not the participation terminal device can communicate with another participation terminal device, includes process of sending data for the communication availability judgment from the participation terminal device other than the management terminal device to another participation terminal device that is participating in the network, and process of judging whether or not the participation terminal device that has received the data for communication availability judgment can communicate in accordance with the received data for communication availability judgment upon which the claimed invention can be seen as an improvement.

Takeuchi et al. teaches a prior art comparable system and method of data transfer in radio networks wherein communication between a terminal device and a management terminal device is performed at regular intervals.

Thus, the manner of enhancing a particular device (system and method of data transfer in radio networks wherein communication between a terminal device and a management terminal device is performed at regular intervals) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Takeuchi et al. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art network configuration management method wherein the judging in the step of judging whether or not the participation terminal device can communicate with another participation terminal device, includes process of sending data for the communication availability judgment from the participation terminal device other than the management terminal device to another participation terminal device that is participating in the network, and process of judging whether or not the participation terminal device that has received the data for communication availability judgment can communicate in accordance with the received data for communication availability judgment of Nakakita et al. and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized a system and method of an ad-hoc network comprising band management.

Consider claim 9, as applied to claim 8. Nakakita et al., as modified by Takeuchi et al., discloses a communication terminal device wherein the judgment at the process of judging whether the communication with the participation terminal device can be performed or not, includes: a process of sending data for the communication availability judgment at regular intervals from the participation terminal device other than the management terminal device to another participation terminal device that is participating in the network, and process of judging whether or not the participation terminal device other than the management terminal device that has received the data for communication availability judgment can communicate in accordance with the received data for communication availability judgment. [Takeuchi et al., paragraph 0070]

Consider claim 12, as applied to claim 11. Nakakita et al., as modified by Takeuchi et al., discloses a network band management method further comprising the step of determining by the communication terminal whether a predetermined amount of data can be sent or not in accordance with the band-in-use information which is notified in the step of giving notice of the band-in-use information.

[Takeuchi et al., paragraph 0005] A band management server divides the traffic volume of a transmission line into real time communication and non-real time communication, and manages it. The "real time communication" said here refers to the communicative thing which needs to perform transmission which followed strictly the amount of zones which is represented by the multimedia data transfer etc., and which application requires. On the other hand, "non-real time communication" refers to the communication in which restrictions of the amount of zones represented by FTP do not exist.

[Takeuchi et al., paragraph 0006] Each node which is going to transmit a packet to a transmission line regardless of real time communication and non-real time

communication transmits the control packet for performing a band assignment demand to a band management server, before starting the transmission. In requiring the zone for real time communication, it also includes the amount of zones to demand in a control packet collectively.

[Takeuchi et al., paragraph 0007] The band management server which received the band assignment demand from each node assigns a zone in the following procedures.

[Takeuchi et al., paragraph 0008] 1) Give priority to the band assignment for real time communication.

[Takeuchi et al., paragraph 0009] 2) Assign the remainder which lengthened the zone secured to real time communication by 1 from the maximum traffic volume on a transmission line to permit uniformly to the node which is demanding the zone for non-real time communication as a zone for non-real time communication.

[Takeuchi et al., paragraph 0010] A band management server returns the control packet containing the assigned amount of zones to each node. Each node which received the above-mentioned control packet performs packet transmission at the rate which is strictly in agreement with the amount of zones contained in a control packet.

Consider claim 13, as applied to claim 12. Nakakita et al., as modified by Takeuchi et al., discloses a network band management method further comprising the step of notifying a user of a result of the determination whether the predetermined amount of data can be sent or not, by the communication terminal. [Nakakita et al., paragraph 0033]

Consider claim 14, as applied to claim 12. Nakakita et al., as modified by Takeuchi et al., discloses a network band management method further comprising the step of converting by the communication terminal, the predetermined amount of data to be within the available communication band in accordance with the band-in-use

information in order to send the converted data, when the predetermined amount of data is determined not to be able to be sent. [Takeuchi et al., paragraphs 0005-0010]

Consider claim 15, as applied to claim 11. Nakakita et al., as modified by Takeuchi et al., discloses a network band management method wherein the step of giving notice of the band-in-use information is performed in accordance with a notification request from the managed terminal to the management terminal. [Takeuchi et al., paragraphs 0005-0010]

Conclusion

5. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window

Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Mark Fearer whose telephone number is (571) 270-1770. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Mark Fearer
/M.D.F./
September 2, 2009

/George C Neurauter, Jr./

Primary Examiner, Art Unit 2443